MODIS sensor Working Group (MsWG) Meeting Summary July 13, 2011

Attendance: Junqiang Sun, Aisheng Wu, Amit Angal, Hongda Chen, Brian Wenny, Chris Moeller, Gary Toller, William Barnes, Jack Xiong, Ben Wang, Gerhard Meister, Sadashiva Devadiga, Vince Salomonson

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Item 1: Recent L1B LUT delivery

- Terra C5 forward update – 5.0.46.22 (06/23/11) – m1 & RVS
- Aqua C5 forward update – 5.0.39.16 (06/29/11) – m1 & RVS
- Aqua C6-OBPG special delivery – 6.1.7.3-OC7 (06/30/11)

Item 2: Instrument status

- Terra and Aqua MODIS are in nominal operations
- Aqua experienced a non-recoverable data loss due to contact errors and buffer overwrite. Data lost from 2011/187 02:03:55-02:16:37 (07/06/11). Gerhard asked if this time period was during day or night. Sadashiva confirmed it was night time while over Antarctica.

Item 3: MCST recent activities

- C6 TEB updates

  MCST is in process of addressing two issues for the TEB C6 LUTs: Terra a0/a2 and Aqua default b1. The proposed modification of Terra a0/a2 coefficients to use a0=0 and cool-down a2 for all bands has been tested internally with expected results (presented at 06/08/11 MsWG). A set of test LUTs was provided to Univ. Wisconsin in order to generate an extensive science test dataset. Chris: The plan is to generate a full year of data (2009) and re-analyze the IASI – MODIS SNO comparison data presented at the science team meeting. It is expected that this a0/a2 modification should reduce the cold scene differences between the two instruments by 80-90%. Some iteration may be required to find the most appropriate coefficients to use. A mid-August goal for completing this analysis and finalizing the C6 a0/a2 approach is still achievable. Brian asked if other products, such as LST, need to test any granules. Sadashiva will check with Dr Wan to see what he requires.

  The proposed modified algorithm for Aqua default b1 was presented at the 06/08/11 MsWG and discussed off-line with Chris Moeller. An L1B code change is required for implementation. The algorithm applies only to Aqua bands 33, 35 & 36 and is designed to compensate for LWIR FPA temperature fluctuations during the periods of TBB > Tsat. The LUTs and code changes have been developed and internal testing is complete. An impact assessment shows that temperature differences (new approach – constant b1 approach) are small early in mission (~0.1 K) and become larger as the LWIR FPA temperature fluctuations increase later in the mission (~1.2 K). This change will only impact a 3-4 hour period every 3 months. No objections were raised to implementing this code change in both C5 (only effects forward processing) and C6.

  Jack brought up the possibility of decreasing the frequency of the WUCD activities. Chris suggested at this point in the mission there is no reason to change the frequency, as there are other uses for the WUCD data.

Item 4: Around the Table

- Junqiang to set up meeting with Gerhard to discuss Aqua prelaunch SNR

Next Meeting: ~July 27, 2011

Compiled by B. Wenny